

### **REMARKS/ARGUMENTS**

Initially, the Applicant would like to thank the Examiner and the Examiner's Supervisor for taking the time to discuss the outstanding Office Action with the Applicant's Representative during a telephonic interview conducted on October 2, 2009. During the interview, the Applicant's Representative and the Examiners discussed the differences between the present invention and the applied prior art. The Examiner agreed that the limitations of claim 17, namely that a location recording device associated with one of the entities transfers location data to the electronic seal is not taught by the prior art of record.

### **ELECTION/RESTRICTION**

On page 2 of the Office Action, the Examiner set forth a restriction requirement between Group I claims 1-49 drawn to a verification of a log of an electronic seal; and Group II, claims 50-70, drawn to location detection using global positioning module. On July 8, 2009 a provisional election, without traverse, to Group I was made by the previous Attorney of record. By this response, the Applicant confirms the provisional election. That is, the Applicant elects, without traverse, to continue prosecution on Group I claims 1-49. Claims 50-70 have been cancelled.

### **OBJECTIONS TO THE SPECIFICATION**

On page 4 of the Office Action, the Examiner objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. The Examiner argues that the "means for performing" recited in each of claims 26 and 46 lacks proper antecedent basis. In order to address the Examiner's concerns, claims 26 and 46 have been cancelled in order to further prosecution.

### **OBJECTIONS TO THE CLAIMS**

Claim 45 is objected to as being a method claim dependent upon claim 30, an

apparatus claim. By the present amendment, claim 45 has been cancelled.

#### **CLAIM REJECTIONS UNDER 35. U.S.C. §101**

Claim 1-49 are rejected as being directed to non-statutory subject matter. The Examiner argues that the subject matter of claims 1-49 does not meet the definition of statutory subject matter set forth in *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed Cir. 2008)(en banc) which requires that a patent eligible process must be tied to a particular machine (or apparatus) or transform a particular article to a different state. This rejection is respectfully traversed. The Applicant respectfully submits that claims 1-49 are tied to a particular machine, namely an electronic seal. During the telephonic interview, the Examiner noted that the electronic seal was not positively recited in the claims and therefore was not being given patentable weight. By the present amendment, claim 1 has been corrected to positively recite the electronic seal. Accordingly, the Applicant respectfully submits that it is clear that claim 1 is tied to a particular machine and respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §101.

Independent claims 27 and 30 require “an interface for transferring data to the electronic seal”. The Examiner argues that the interface may be interpreted as software. However, the specification, on page 23, last partial paragraph, describes the interface as being a wireless interface, or a one wire serial bus. In either case, the interface includes particular structure that allows at least one entity to communicate with the electronic seal. In the case of a wireless interface, there must exist antennas, wireless communication ports and the like. In the case of a serial bus, there must be specific structure that provides a connecting point and associated signal paths to a processor to facilitate communication. Finally, claim 47, like claim 1, specifically requires an electronic seal, which as discussed above, is a particular machine thus satisfying the first prong of the Bilski test. Accordingly, the Applicant respectfully submits that claims 1-49 are directed to statutory subject matter.

### **CLAIM REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH**

Claims 26 and 46 are rejected as being indefinite for failing to particularly point out and distinctly claim the invention. The Examiner argues that the claim element “means for performing” set forth in each claim are not supported by the written description. While the Applicant disagrees with the Examiner’s position, claims 26 and 46 have been cancelled in order to further prosecution.

### **CLAIM REJECTIONS UNDER 35 U.S.C. §103(a)**

Claims 1-49 are rejected as being unpatentable over Girault et al. (US 5,768,379) in view of Arnold (US 6,456,716). This rejection is respectfully traversed.

In general, the present invention, as defined by claim 1, is directed to a method for documenting a transfer of authority of control for a container from a first entity of a transportation chain to a second entity of the transportation chain. The method requires a first entity to transfer an electronic container control certificate to an electronic seal of the respective container. The electronic container control certificate comprises a cryptographic key associated with the second entity, and which container control certificate is digitally signed by the first entity.

Girault et al. is directed to a system for checking limited access to authorized time slots renewable by means of a portable storage device. The system provides limited access to buildings by personnel having a data key. The data key includes a data element pertaining to a particular time slot having a signature. Electronic locks capable of verifying the signature provide access to a guarded location. Initially, it should be noted that Girault et al. does not pertain to protecting articles in transportation let alone an electronic seal for a container. In addition, Girault et al. does not teach transferring a container control certificate including a cryptographic key to an electronic seal for a container. At best, Girault et al. teaches storing a data element having a particular signature on a key card. More specifically, Girault et al, does not teach transferring the

certificate to the lock. The lock merely reads the data element from the key card.

Arnold is directed to an apparatus and method for establishing a cryptographic link between elements of a system. In Arnold, a hierarchical cryptographic system provides distributed authority among different classes of units. A first unit distributes public and private encryption keys. A second unit accepts for use one of more of the keys only after performing a verification program. In a manner similar to that set forth above, Arnold does not teach transferring a container control certificate including a cryptographic key to an electronic seal for a container. Arnold simply teaches reading and decrypting a certificate. The Applicant respectfully submits that the combined teachings of Girault et al. and Arnold would, at best, teach a key card including a cryptographic data element stored as a digital certificate, and a lock capable of reading and decrypting the data element. The combination does not teach transferring the certificate to the lock, let alone transferring a certificate having a cryptographic key associated with a second entity.

Regardless of these distinctions, the Applicant has amended claim 1 to more particularly point out and distinctly claim the invention. That is, claim 1 has been amended to further require receiving in the electronic seal associated with the container, geographic location data from a location recording device associated with one of the first and second entities. None of the prior art, when taken singly or in combination teaches an electronic seal that received geographic information.

Claim 27 is directed to a computing unit for communicating with an electronic seal of a container. The computing unit includes an interface for transferring data to the electronic seal, and a control unit. The control unit is designed to assemble an electronic container control certificate including a cryptographic key associated to an entity different from the entity the computing unit is associated to, digitally signing the container control certificate on behalf of the associated entity, and submitting the digitally signed container control certificate to the interface. As noted above, none of the prior art is associated with transferring a digital certificate to an electronic seal for a container, let alone a certificate

including a cryptographic key associated to an entity different from the entity the associated with the computing unit.

Claim 30 is directed to an electronic seal for a container. The seal includes an interface accessible for entities participating in the transportation chain, a log for recording data, and a control unit for verifying data received via said interface. The control unit is designed for decrypting a digitally signed electronic container control certificate received via said interface. The decryption process uses decrypt information, associated to the transmitting entity, stored in the log. As noted above, none of the prior art is associated with storing a digital certificate in a seal, let alone a seal that includes a control unit that uses decrypt information stored in a log to decrypt the digital certificate.

The remaining claims depend from based claims, which, for the reasons set forth above, the Applicant submits are allowable and, as such, will not be discussed in detail.

Based on the above remarks, the Applicant respectfully submits that the present invention is patentably defined over the prior art of record such that allowance of all claims and passage of the application to issue is respectfully requested. If the Examiner should have any additional questions or concerns she is cordially invited to contact the undersigned at the number provided below.

If there are any additional charges with respect to this Response or otherwise, please charge them to Deposit Account No.50-0510.

Respectfully Submitted,

CANTOR COLBURN LLP

By /Victor Kernus/

Victor Kernus

Registration No. 50,146

Customer No. 29371

Cantor Colburn LLP

1800 Diagonal Road, Suite 510

Alexandria, VA 22314

Phone: 703-236-4500

Fax: 703-236-4501

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